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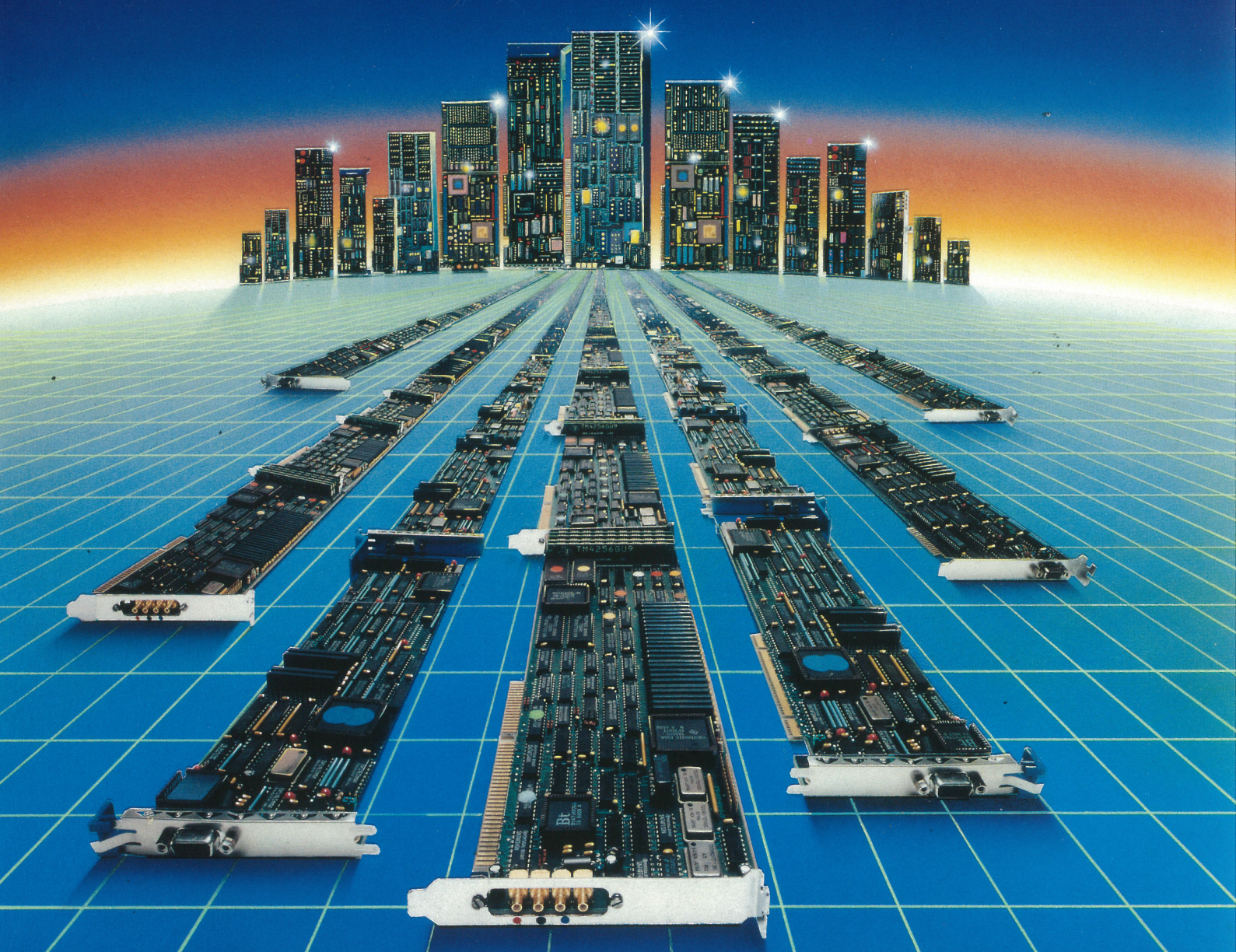

THE INFO DTP FAMILY
USER'S GUIDE

INFOTRONIC

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THE INFO DTP FAMILY
USER'S GUIDE

INFOTRONIC®

Table of Contents

THE INFO DTP FAMILY USER'S GUIDE

CHAPTER 1 1-1

CHAPTER 2 2-1

CHAPTER 3 3-1

APPENDICES A-1

ADDENDUM Drivers software

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How to Use this Guide

The INFOTRONIC INFO DTP User's Guide provides you with the information you need to install your INFO DTP graphics controller and optimize its configuration.

This guide is divided into three chapters, three appendices and addendums:

Chapter 1: Introducing the INFO DTP Family. This chapter introduces the features and system specifications of the INFO DTP graphics controller.

Chapter 2: Installing Your INFO DTP. This chapter explains how to configure the board before installation and how to install the graphics controller in your system.

Chapter 3: Installing Drivers with Your INFO DTP. This chapter explains which drivers are available.

Appendices: Complete technical specifications and an explanation of the diagnostic tests, jumper settings and video connector pinouts are included in the appendices.

Addendum: List of drivers available and instructions for installation and usage.

The version number of this manual is 6.02

About INFOTRONIC

INFOTRONIC is a recognized technology leader which currently has OEM development and sales agreements with many major computer and monitor manufactures.

INFOTRONIC's graphics boards are based on an intelligent processor architecture using commercially available processors and proprietary ASIC design.

CHAPTER 1

INTRODUCING THE INFOTRONIC INFO DTP

Thank you for buying the INFOTRONIC INFO DTP high resolution intelligent graphics controller. The first intelligent low cost graphics board available, it offers the widest software compatibility possible. Although the INFO DTP is one of the most technologically advanced graphics controllers available today, it is extremely user-friendly. Installation, maintenance and trouble shooting are exceptionally simple and require no detailed technical knowledge.

Designed around Texas Instruments' popular TMS 34010 graphics processor, the INFO DTP is a self-contained graphics system, featuring its own operating environment and up to 1 MB DRAM.

Speed and Flexibility

The INFO DTP graphics controller executes programs at the same very high rate, whether running on a PC XT (8088), AT (80286), or 80386-based machine. However, we recommend an 80386-or 80486-based system for optimum data through-put.

Using the INFO DTP in your system opens a wide range of possibilities, allowing you to work with:

- all CGA-based software
- MS Windows and all MS Windows- based programs
- AutoCAD with on-board display list for highest performance and function
- Graphic and presentation software such as Harvard Graphics and WordPerfect
- GEM-based programs such as Ventura Publisher

Features and Options

In addition, the INFO DTP offers you:

- 768 x 1024 pixel resolution for INFO DTP 768
- 1280 x 1024 pixel resolution for INFO DTP 1280
- 1600 x 1200 pixel resolution for INFO DTP 1600
- 1 bit per pixel
- up to 1 MB dynamic RAM
- on-board CGA emulation

The INFO DTP board can be upgraded. Contact your dealer for more information.

System Requirements

To use the INFO DTP, your system must meet the following requirements:

- be an IBM PC XT/AT-compatible computer
- have at least one free 8-bit expansion slot
- have at least 640 KB of memory
- include an hard disk
- have a high resolution monochrome monitor

It would be helpful if you are familiar with the DOS operating system.

Graphics System Configuration

With the INFO DTP board in the standard configuration, you work in single screen mode using only the high resolution fixed frequency monitor. When you switch on the PC you will see on the high resolution screen the DOS prompt characters, in fact the INFO DTP board emulates CGA mode: alphanumeric 40/80 columns and graphics CGA mode (640 x 200) in full screen.

Getting Started

When you buy the INFO DTP graphics controller you get everything you need to install the controller and begin using your software including:

- INFO DTP graphics controller
- coaxial cable for connection to the high resolution monitor
- INFOTRONIC drivers diskettes

CHAPTER 2

INSTALLING YOUR INFO DTP

This chapter contains the following information to help you install your INFO DTP graphics controller:

- Before Installation - a checklist to review before you install your INFO DTP graphics controller. Instructions for jumper settings.
- Installing the INFO DTP in your PC and cable connections.
- Running the Setup Program - instructions for running the Setup Program to automatically install the INFO DTP graphics controller on your system.

Before Installation

Before installing the INFO DTP graphics controller, check the following:

- The jumpers on the INFO DTP graphics controller are in the correct position. Refer to the next paragraph to check jumper configuration.

Jumper Settings

On the INFO DTP graphics controller several jumpers are present. Normally the hardware installation does not require any change in the jumper configuration. However a list of jumpers is shown in order to give complete information. Fig. 2-1 and table 2-1 show the position and settings of the jumpers.

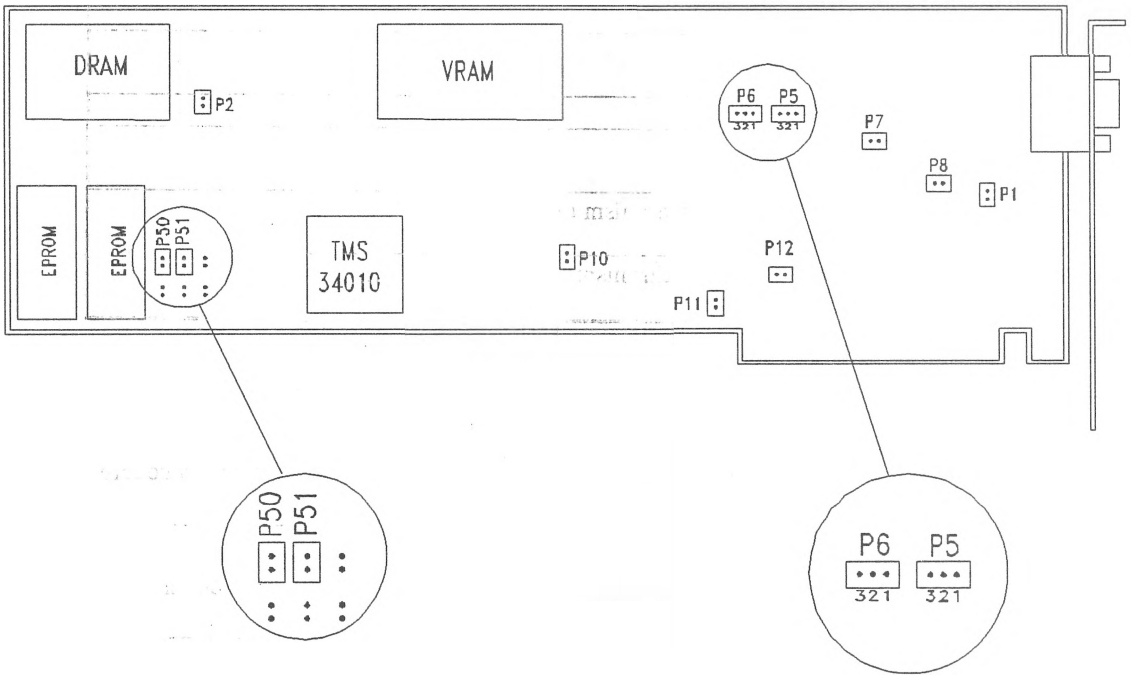


Fig. 2-1: The INFO DTP Graphics Controller

Table 2-1: Jumpers

Jumpers	Position	Description	Pos. Default
P1		Reserved	OFF
P2		Reserved	ON
P5	3-2	Negative HSYNC	2-1
	2-1	Positive HSYNC	
P6	3-2	Negative VSYNC	2-1
	2-1	Positive VSYNC	
P10 P11 P12	ON	Enables hardware CGA emulation	ON
	OFF	Disables hardware CGA emulation	
P50		Reserved	ON
P51		Reserved	ON
P7	P8	Description	
ON	OFF	Enables synchronism on B/W (default)	
OFF	ON	Disables synchronism on B/W	

Installing the INFO DTP in Your PC

Installing the INFO DTP graphics controller is very simple. Read the following procedure.

WARNING:

Before performing the following procedure, be sure your PC is powered down and disconnected.

1. Open your PC and insert the INFO DTP graphics controller in a free slot for 8 bit operation. Remove, if present, any video control board (e.g. CGA, Hercules)

2. Connect the INFO DTP graphics controller to the high resolution monitor using the cable supplied.

3. Power up your PC. At the system bootstrap you will see on the high resolution monitor the DOS prompt characters.

NOTE:

Configure the PC setup for 80 columns CGA mode. Furthermore if your PC has a jumper for primary display adaptor setting, be sure that it is correctly configured for color boards.

The SETUP Program

WARNING:

The following procedure is only for DOS environment, while for other operating systems skip to the related addendums.

The SETUP program is located on every DOS diskette shipped with your INFO DTP graphics controller. This program customizes the INFO DTP graphics controller to your PC, allowing you to specify:

- version of the graphics controller (INFO DTP 768, DTP 1280, DTP 1600)
- memory size (512KB, 1MB)
- directory on the hard disk

The diskette also includes a diagnostic program that is copied automatically into the directory created.

To Run SETUP

1. Insert the SETUP diskette in Drive A and type:

   a:SETUP <Enter>

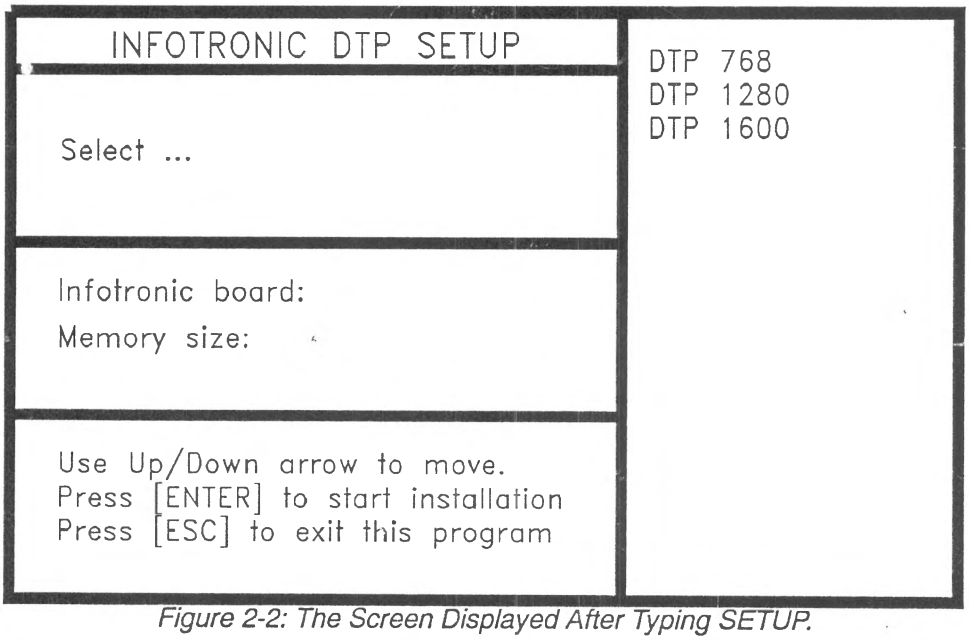


Figure 2-2: The Screen Displayed After Typing SETUP.

The SETUP Program will ask you the below questions, please answer them following the instruction reported in the left bottom help window.

a) Select your graphics board;
b) Select memory size;
c) Indicate directory on hard disk

2. Type: < Y > to accept e.g. C:\DTP1280 as the name of your installation directory, or <N> to assign a different name to the directory. SETUP will prompt you for the new name.

3. When the directory name is entered, the Setup program starts to copy files and on the right part of the control screen, gives you indication of the files copied.

4. At the end of the SETUP procedure remove the diskette.

NOTE:

All files created by SETUP and all software drivers must be copied into the same directory (e.g. DTP1280).

CHAPTER 3

INSTALLING DRIVERS WITH YOUR INFO DTP

This chapter contains the list of the drivers available for the INFO DTP board and the steps necessary to start driver installation.

Drivers Available for DOS Environment

- AutoCAD 10
- AutoCAD 386
- AutoSketch
- DGIS
- MS Windows 3.0
- PageMaker
- TIGA
- Ventura Publisher
- ...

Drivers Available for Other Operating Systems

- UNIX SANTA CRUZ OPERATION (SCO UNIX System V/386 Rel. 3.2)
- UNIX Interactive 386 (ISC 386/ix Rel. 2.02)

UNIX Interactive 386 requires a specific installation guide.

For a complete and updated list of drivers, please contact your dealer.

How to Install Drivers

For detailed information on the installation and functionality of drivers, refer to the related addendum.

APPENDICES

Appendix A: Technical Specifications

General

Operating mode	High resolution monochrome and CGA emulation
Display Resolution	768 x 1024 pixels for INFO DTP 768 1280 x 1024 pixels for INFO DTP 1280 1600 x 1200 pixels for INFO DTP 1600
Bit per pixel	1

Architecture

Graphics Processor	Texas Instruments TMS 34010
Video memory	256 KB for INFO DTP 768 / INFO DTP 1280 512 KB for INFO DTP 1600
Program/Data RAM memory	512 KB expandable to: 1 MB
Firmware memory	64 KB
Serial Port	optional plug-in board: up to 2 RS-232 ports directly connected to the local bus of graphics processor. Available versions: - DUART 28 pin (MC2682) - DUART 40 pin (MC2681) - UART 28 pin (COM2651)
Monochrome output	- standard analog output RS-343 - ECL level video output - composite sync on video or separated (strap presettable)

Video specifications for INFO DTP 768

Pixel frequency	80 MHz
Horizontal frequency	80 KHz
Vertical frequency	75 Hz
Scan	non-interlaced

Video specifications for INFO DTP 1280

Pixel frequency	125 MHz
Horizontal frequency	75 KHz
Vertical frequency	70 Hz
Scan	non-interlaced

Video specifications for INFO DTP 1600

Pixel frequency	170 MHz
Horizontal frequency	80 KHz
Vertical frequency	60 Hz
Scan	non-interlaced

Connectors

Video connector	15 pin sub-D female type
Serial connector (optional)	25 pin sub-D male type

NOTE:

Serial port is intended for OEM purposes and requires specific software. Contact your dealer for more information.

Host Interface

Expansion bus	IBM PC XT/AT or compatible
Number of slots	1
Host interface bus	8 bits

Appendix B: Diagnostic Files

If you want to run the diagnostic file, change to the installation directory and type:

diag **<Enter>**

A menu is displayed with these options:

0 Test video RAM
1 Test dynamic RAM
2 Test fonts
3 Test video convergence
4 Test registers
5 Test EPROM check sum
6 Test CGA modes
7 All tests

Select a test by pressing the corresponding number key on your keyboard. Answer the questions that are displayed.

There is a help window for each of the tests at the bottom of the screen. To access the help screen, press < **H** >.

Press **<Esc>** to quit.

Test Descriptions

0 Test Video RAM	Tests the board's screen memory. If the test fails, the program shows the location (address, written value, read value) where the problem occurs.
1 Test Dynamic RAM	Tests the dynamic local memory. If the test fails, the program shows the location (address, written value, read value) where the problem occurs.
2 Test Fonts	Displays a set of characters.
3 Test Video Convergence	Tests for monitor problems.

4 Test Register	Tests several registers of the graphics processor. If a problem occurs, the program displays an error message and visualizes the register address, the written and read value.
5 Test EPROM check sum	The EPROM check sum test reads the EPROM contents, calculates the check sum and makes a comparison with the one present in the EPROM. Finally the OK or not OK message is displayed.
6 Test CGA modes	The CGA test displays the alphanumeric CGA resolution modes (40/80 columns) and the graphics CGA resolution mode (640x200).
7 All Tests	Runs all tests automatically. To quit this test press **<Esc>** The test results will be logged in a file called REPORT.ERR

Appendix C: Jumpers and Video Connector Pinout

On the INFO DTP graphics controller several jumpers are present. Normally the hardware installation does not require any change in the jumper configuration. However a list of jumpers is shown in order to give complete information. Fig. 2-1 and table 2-1 show the position and settings of the jumpers.

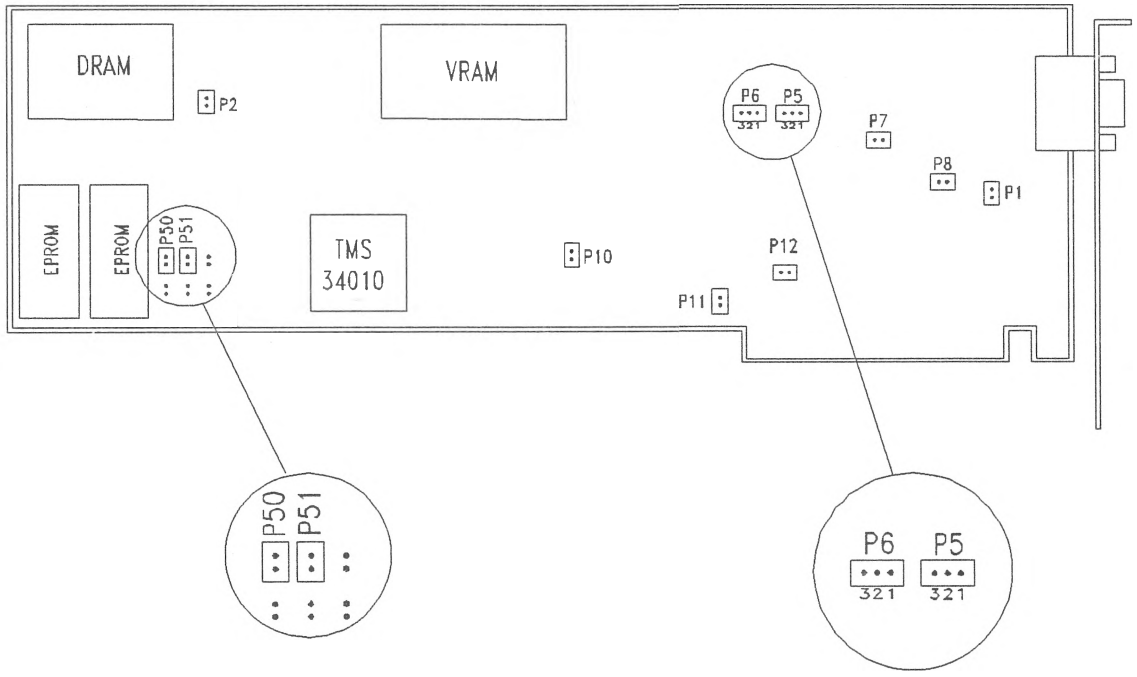
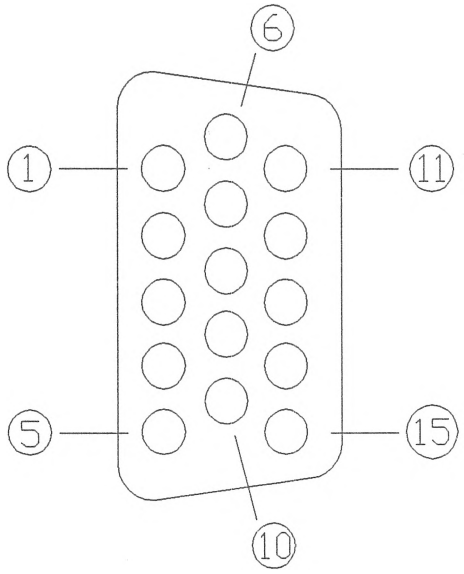


Fig. C-1: The INFO DTP Graphics Controller

Table C-1: Jumpers

Jumpers	Position	Description	Pos. Default
P1		Reserved	OFF
P2		Reserved	ON
P5	3-2	Negative HSYNC	2-1
	2-1	Positive HSYNC	
P6	3-2	Negative VSYNC	2-1
	2-1	Positive VSYNC	
P10 P11 P12	ON	Enables hardware CGA emulation	ON
	OFF	Disables hardware CGA emulation	
P50		Reserved	ON
P51		Reserved	ON
P7	P8	Description	
ON	OFF	Enables synchronism on B/W (default)	
OFF	ON	Disables synchronism on B/W	

Fig. C-2: The Video Connector Jout



Refer to table C-2 about the pin description in Video Connector Jout

PIN 1 and 3 twisted pair differential ECL output

Table C-2: Pin Description

PIN#	Description
1	ECL + OUT
2	ANALOG OUTPUT
3	ECL – OUT
4	GND
5	GND
6	GND
7	GND
8	GND
9	GND
10	GND
11	GND
12	GND
13	HSYNC (if enabled) *
14	VSYNC (if enabled) *
15	CSYNC

* = Default enable

ADDENDUM
Drivers Software

TIGA Version 2

MS WINDOWS 3.0 (TIGA Interface)

TIGA Version 1

AUTOCAD 10 (TIGA Interface)

DGIS3

VENTURA PUBLISHER Rel. 2.0

GEM 3.x

UNIX SANTA CRUZ OPERATION (SCO UNIX System V/386 Rel. 3.2)

TIGA Version 2

This driver supports TIGA-based applications.

How to Install the TIGA Driver

IMPORTANT WARNING:

If you already had a TIGA driver Rel. 1.1 in your installation directory BE NOTICED that the files related to TIGA rel. 2 overlap the files of TIGA rel. 1. **WE SUGGEST YOU DO NOT OVERLAP THE OLD FILES WITH THE NEW ONES! PLEASE USE A DIFFERENT BOARD'S DIRECTORY.** This means that you should run SETUP program again for your board creating a new installation directory.

1. Change to the directory where you have the files for your graphics board. This directory should contain the file **setupinf.aaa,** which is the configuration file for your board. This file was created automatically when you performed the setup of the board.

   cd \<installation directory> <Enter>

2. Place DOS DISK N. 4 in Drive A and type:

   A:INSTALL <Enter>

3. Select to install the driver:

   TIGA 2.0

4. The driver install program will create a batch file for TIGA. This batch file is called:

   - INFOTIGA

5. When the installation is complete, press <Esc> to quit.

How to Run a TIGA-based Program

Before running any TIGA-based program you must load the TIGA driver. This can be done just once at the startup of your computer. Go to the directory you chose for your board and type:

INFOTIGA <Enter>

This batch file automatically loads the TIGA driver. After that you can normally run any program running under TIGA.

How to Remove the TIGA Driver

To remove the driver, go to the directory you chose for your board and type:

REMTIGA <Enter>

The PC's memory and the local memory of the graphics processor are now cleaned up. Removing the driver is mandatory when you want to move to a new graphics environment such as DGIS or AutoCAD.

Notes for TIGA Programmers

1. Since the card does not have a palette, the following TIGA functions are not implemented:

   set_palet ()
   get_palet ()
   set_palet_entry ()
   get_palet_entry ()
   init _palet ()
   get_nearest_color ()

2. To switch from high resolution mode to CGA mode, use "set_videomode" specifying as first parameter "CGA", as the following example:

   set_videomode (CGA,INIT);

3. Avoid using GSP traps 3,4, and 5 as they are used for CGA emulation. If you work only in a TIGA environment you can ignore this note, but if you want to run a DGIS-based program after quitting TIGA you can have trouble unless you reboot.

4. When you switch from high resolution mode to CGA mode all the data written in the screen memory is lost, because they are substituted by the CGA screen data. If needed, screen memory data must be saved by the application program before switching.

MS WINDOWS 3.0 (TIGA Interface)

This driver supports MS Windows Rel. 3.0 under TIGA environment.

How to Install the MS Windows 3.0 Driver

1. Change to the directory where you have the files for your graphics board. This directory should contain the file **setupinf.aaa**, which is the configuration file for your board.

   cd \<installation directory> <Enter>

2. Place DOS DISK N. 4 in Drive A and type:

   A:INSTALL <Enter>

3. When the installation menu appears, select to install the driver:

   MS Windows 3.0

4. The driver install program will create a batch file to load MS Windows 3.0 driver. This batch file is called:

   - INFOWIN3

5. When the installation is complete, press < Esc > to quit.

How to Setup MS Windows 3.0

After installing the driver, you must setup MS Windows 3.0. First of all you must load the driver with the command:

INFOWIN3 <Enter>

1. Insert the MS Windows installation diskette supplied from Microsoft.

2. Make A: the default drive by typing:

   a: <Enter>

you get the A:\> prompt.

3. Type:

   SETUP <Enter>

4. The program will ask you some questions. Answer the questions and follow the instructions on the screen. Continue until the program displays the configuration of your system. Now highlight the DISPLAY line using the up arrow key and press **<Enter>**. Using the down arrow key move to the bottom of the list, choose 'OTHER' and press **<Enter>**.

5. Insert DOS DISK N. 4 in drive A, press **<Enter>** again and choose:

   "TIGA Monochrome single screen"

6. Follow all the instructions the system prompts you. After the driver has been loaded, Windows starts to copy files and the installation process continues under Windows environment (Hi-Res mode).

   NOTE:

   When you see the message *"Setup needs the following disk:"* with no disk label specified, you must insert the DOS DISK N. 4 in the drive, type the drive letter you are using (such as A: or B:) and then press **<Enter>**.

7. MS Windows automatically installs the software for the high resolution graphic board.

8. At the end of installation choose:

   Run MS Windows
   or
   Back to DOS

   NOTE:

   If MS Windows 3.0 is already installed in your system, you can run the program "SETUP" from the MS Windows 3.0 installation directory and change the DISPLAY configuration as explained above.

How to Run the MS Windows 3.0 Driver

Before running MS Windows 3.0 type:

INFOWIN3 <Enter>

This batch file automatically loads the MS Windows 3.0 driver. After that you can normally run MS Windows 3.0.

TIGA Version 1

This driver supports TIGA-based applications.

How to Install the TIGA Driver

IMPORTANT WARNING:

If you already had a TIGA driver Rel. 2.0 in your installation directory BE NOTICED that the files related to TIGA rel.1 overlap the files of TIGA rel.2. **WE SUGGEST YOU DO NOT OVERLAP THE OLD FILES WITH THE NEW ONES! PLEASE USE A DIFFERENT BOARD'S DIRECTORY.** This means that you should run SETUP program again for your board creating a new installation directory.

1. Change to the directory where you have the files for your graphics board. This directory should contain the file **setupinf.aaa**, which is the configuration file for your board. This file was created automatically when you performed the setup of the board.

   cd \ <installation directory> <Enter>

2. Place DOS DISK N. 1 in Drive A and type:

   A:INSTALL <Enter>

3. Select to install the driver:

   TIGA 1.0

4. The driver install program will create a batch file for TIGA. This batch file is called:

   - INFOTIGA

5. When the installation is complete, press <Esc> to quit.

How to Run a TIGA-based Program

Before running any TIGA-based program you must load the TIGA driver. This can be done just once at the startup of your computer. Go to the directory of your board and type:

INFOTIGA <Enter>

This batch file automatically loads the TIGA driver. After that you can normally run any program running under TIGA.

How to Remove the TIGA Driver

To remove the driver, go to the directory you chose for your board and type:

REMTIGA <Enter>

The PC's memory and the local memory of the graphics processor are now cleaned up. Removing the driver is mandatory when you want to move to a new graphics environment such as DGIS or AutoCAD.

Notes for TIGA Programmers

1. Since the card does not have a palette, the following TIGA functions are not implemented:

   set_palet ()
   get_palet ()
   set_palet_entry ()
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   init _palet ()
   get_nearest_color ()

2. To switch from high resolution mode to CGA mode, use "set_videomode" specifying as first parameter "CGA", as the following example:

   set_videomode (CGA,INIT);

3. Avoid using GSP traps 3,4, and 5 as they are used for CGA emulation. If you work only in a TIGA environment you can ignore this note, but if you want to run a DGIS-based program after quitting TIGA you can have trouble unless you reboot.

4. When you switch from high resolution mode to CGA mode all the data written in the screen memory is lost, because they are substituted by the CGA screen data. If needed, screen memory data must be saved by the application program before switching.

AUTOCAD Rel. 10
AUTOCAD 386
AUTOSKETCH

The AutoCAD Driver Infoadi4 Version 1.0

This driver supports AutoCAD 10 multiviewport display list processing on board. This release supports the following features:

- Bird's eye view
- Display list indicator
- Flush
- User selectable interrupt level
- Multiviewport orientation system (MOS)
- AutoCAD 386 compatibility
- AutoSketch compatibility

How to Install the AutoCAD Driver

IMPORTANT WARNING:

If you already had a TIGA driver Rel. 2.0 in your installation directory BE NOTICED that the files related to TIGA rel.1 overlap the files of TIGA rel.2. **WE SUGGEST YOU DO NOT OVERLAP THE OLD FILES WITH THE NEW ONES! PLEASE USE A DIFFERENT BOARD'S DIRECTORY.** This means that you should run SETUP program again for your board creating a new installation directory.

1. Change to the directory where you have the files for your graphics board. This directory should contain the file **setupinf.aaa**, which is the configuration file for your board. This file was created automatically when you performed the setup of the board.

   cd \ <installation directory> <Enter>

2. Place DOS DISK N. 1 in Drive A and type:

   A:INSTALL <Enter>

3. Select to install the driver:

   AUTOCAD 10/386

4. The driver install program will create a batch file for AutoCAD 10. This batch file is called:

   - INFOACAD

5. When the installation is complete, press <Esc> to quit.

How to Run the AutoCAD Driver

Before starting configure AutoCAD 10 for:

- ADI 4. *x* driver
- Interrupt vector 7Ah

NOTE:

This is the default interrupt level. For user-selectable interrupt level consult the appropriate section in this addendum.

Before running AutoCAD you must load the AutoCAD driver. This should be done just once at the startup of your computer. Go to the directory you chose for your board and enter:

INFOACAD <Enter>

This batch file automatically loads the AutoCAD driver. After that you can run AutoCAD normally.

How to Remove the AutoCAD Driver

To remove the driver, go to the directory you chose for your board (e.g. C:\DTP1280) and type:

REMACAD <Enter>

The PC's memory and the local memory of the graphics processor are now cleaned up. Removing the driver is mandatory when you want to move to a new graphics environment such as DGIS.

Extra Features of AutoCAD Driver

Background Color Presetting

The default color background is BLACK. If you want, however, you can change to white background using the option "-bgwhite". To do this, edit the batch file **infoacad.bat** and change the last line as follows:

INFOADI4 -bgwhite <Enter>

Bird's Eye

This release supports the bird's eye feature. The command for switching on/off the bird's eye is:

BIRD

A small window will appear showing which part of the complete drawing is now available for fast zoom pans. A colored rectangle will indicate the zoomed portion of the drawing. Of course if there is no activated zoom, the bird's eye is not useful and no colored rectangle is displayed on the bird's eye.

The bird's eye can be placed in 4 different positions. The command for placing the bird's eye in a different corner is:

BIRDPOS

The driver will ask for a number between 1 and 4 to select the new position of the bird's eye. You must then type in one of the following:

(1) for the upper left corner
(2) for the upper right corner
(3) for the bottom right corner
(4) for the bottom left corner

The bird's eye is only for single view, as it is not useful in multiview environment, because of the dynamic zoom (see below).

The bird's eye disappears when the cursor is placed in the bird's eye area and when the menu bar is used. The bird's eye does not work when the display list is full.

We suggest you use the bird's eye in 2-D editing, where the cursor is orthogonal.

Use of Fast Zoom Pan

You can zoom into a drawing up to 32 times without AutoCAD doing a REGEN. If you want to see how far and where you can zoom without forcing a REGEN, a useful AutoCAD command is ZOOM DYNAMIC. This will show you the entire contents of the current window. As you move the cursor and change its size an 'hourglass' icon will appear and disappear at the bottom left of the window. When you can see the 'hourglass' it means that a zoom with the cursor in the current position/size will force a REGEN. If you do not see the icon it means that the INFOTRONIC driver can accomplish a fast zoom without a REGEN. Remember also that you can move the window cursor during ZOOM DYNAMIC without having to wait for the complete design to be finished. See your AutoCAD manual for more information on ZOOM DYNAMIC.

Display List Indicator

The black/white bar on the status line at the top right of the graphics screen is to give the user an idea about how much space there is left in the on-board display list. When you start to load a drawing, the display list indicator is all black. During the loading a white bar will move up from the left to the right, covering the black part. The white portion gives an idea about how much on-board display list RAM has been consumed by the drawing. When all the RAM has been used up the bar will be all white with 'FULL!' written on top of it.

Display List Full

When the display list is full the display list processing is not available; this means that redraw, zoom, pan, etc. are driven by AutoCAD and not by the INFOTRONIC driver. When the display list runs over, a message is displayed on the display list indicator. If you erase the drawing (partly or completely) so that the display list leaves the full status, you must REGEN your drawing to really empty your display list.

Flush

When you erase a part of the drawing new "erasing vectors" (vectors having the same color of background) are added to the display list. This has been done in order to speed up the display list management. Sometimes these "erasing vectors" can cause problems such as dirty points or strays on the screen.

To clear the display list of these "erasing vectors", you can regenerate your drawing using the command REGEN, but sometimes this command is too time consuming. The solution of the problem is an extra command called FLUSH that cleans the display list without regenerating the drawing. The syntax is simply:

FLUSH

If FLUSH takes more than 1 second, a scissor symbol appears on the screen showing that the FLUSH command is in progress.

The FLUSH command is supported also by the INFOTRONIC pull-down menu.

Since FLUSH calls the AutoCAD function REDRAWALL, whose name changes according to language version of AutoCAD, you must select the correct language option when you run the driver. The default language is English, the other options are:

-D for German
-I for Italian
-F for French

For example: "INFOADI4 -D" for the German Version of AutoCAD.

User Selectable Interrupt Level

Previous releases had the interrupt level fixed at 7Ah. Now, using the '-v XY'option, the user can select the interrupt level. The default is still 7Ah. If you have to change it, as example to 7Eh because 7Ah conflicts with your ethernet driver, you have to configure AutoCAD to use ADI4 driver at 7Eh (see AutoCAD setup and installation manual) and edit the batch files **infoacad.bat** and **remacad.bat** adding the "-v 7E" option on the command lines of INFOADI4 and REMADI4 (as example INFOADI4 -v 7E).
For more information type INFOADI4 -? or REMADI4 -? after the installation. See the section on "Example Command Lines".

MOS, Multiviewport Orientation System

Sometimes, when several viewports are open on a complicated drawing containing many similar or identical objects, it is difficult to see how a detailed view relates to a more general one. MOS is designed to help in these situations. If you type 'MOS'a line will be drawn from the centre of the detail view to the centre of a highlighted area in the general one. The highlighted area shows the extent of the detail and its position in relation to other parts of the drawing, thus helping the user orient himself.

Prompt Only

If you do not want a scrolling text area on your dual screen graphics monitor you can load the driver specifying "-prompt". This will give you more room for your drawing without totally removing command prompts from the screen. It also means that you do NOT have to hit <F1> key to get the cursor to reappear on the graphics screen after a HELP.
See the sections "Example Command Lines".

Smaller Fonts Options

If you prefer a smaller font you can type "-sf" on the comand line. This will also give you some more room in the display list for vectors and solids.
See the section on "Example Command Lines".

Boards with 0.5 MBytes of DRAM

The driver will automatically select the smaller system font, as there is not enough RAM for the larger TYPEWR18.FNT.

INFOTRONIC Pull-Down Menu

Through the INFOTRONIC pull-down menu you can request the INFOTRONIC extra features like:

- INFOTRONIC zooms (IZOOM Full\Tiny\Nrwindow)
- Clean display list (FLUSH)
- Bird's eye view (BIRD)
- Bird's eye position (BIRDPOS 1\2\3\4)
- Multiview Orientation System (MOS)

NOTE:

The file ACAD.MNU will be replaced by the new INFOTRONIC file. If you do not want to lose the old ACAD.MNU file before copying the new file you can save it in the AutoCAD directory using the command:

copy \acad10\acad.mnu \acad10\acad-old.mnu <Enter>

To use the INFOTRONIC pull-down menu you must install the related software by copying the file INFOMENU.MNU (contained in the installation directory) into the file ACAD.MNU (contained in the AutoCAD directory) using as an example the command:

copy \DTP1280\infomenu.mnu \acad10\acad.mnu <Enter>

If you want to change your customized ACAD.MNU file appending the INFOTRONIC commands, you can use the source file INFOMENU.MND, which is available in the installation directory.

INFOTRONIC Zooms

NOTE:

If you already have a ACAD.LSP file, please be careful to save the files you do not want to lose, before attempting to copy the new INFOTRONIC file.

To use the INFOTRONIC zooms you must install the related software copying the file INFOZOOM.LSP (contained in your installation directory) into the file ACAD.LSP (eventually contained in the AutoCAD directory) using as an example the command:

copy \DTP1280\infozoom.lsp \acad10\acad.lsp <Enter>

Here follows the description of the available INFOTRONIC zoom utility and the related syntax.

IZOOM FULL
displays the entire stored display list without regens; this zoom is equivalent to zoom all no regen. Syntax:

IZOOM

All/Center/Dynamic/Extents/Left/Previous/Window/[Full/Tiny/Nrwindow]:**f**

IZOOM TINY
displays the maximum centered zoom without regens. Syntax:

IZOOM

All/Center/Dynamic/Extents/Left/Previous/Window/[Full/Tiny/Nrwindow]:**t**

IZOOM NRWINDOW
activates a window zoom automatically adjusted in order to avoid regens. Syntax:

IZOOM

All/Center/Dynamic/Extents/Left/Previous/Window/[Full/Tiny/Nrwindow]:**n**

WARNING:
IZOOMs apply only to two dimensional views.

These zoom utilities are also supported by the INFOTRONIC pull-down menu.

AutoCAD 386 Compatibility

This driver is compatible with AutoCAD 386, allowing up to 16 viewports and very fast regens.

AutoSketch Compatibility

This driver is compatible with AutoSketch, ADI Driver version.

AutoCAD 10 Back Compatibility

The option "-old" gives the complete compatibility to version of AutoCAD 10 prior to release AutoCAD 10/C7.

Example Command Lines

These examples may seem complicated, so remember that you do not need to specify any options to load the default driver setup.

INFOADI4

This will install the driver at 7Ah, with large fonts, 3 line scrolling text area available, for use with new versions of AutoCAD 10. This is the default, the easiest command line you can use!

INFOADI4 -?

This will show you some help. The driver will not be installed.

INFOADI4 -v 7E

This will install the interrupt at 7Eh. Remember to configure AutoCAD for ADI4 at 7Eh. Remember to de-install it using REMADI4 -v 7E.

INFOADI4 -v 7B -sf -old

This is a command line for someone with an older version of AutoCAD 10, installing the interrupt level at 7Bh, and requiring small fonts.

INFOADI4 -prompt

This will disable the 3 lines scrolling text area, but allows you to have a single command prompt line instead. This option is only available for DUAL screen drivers.

The options can be specified in any order, as long as a valid hexadecimal number follows the -v option if present.

You can edit the INFOACAD.BAT file in thje board's installation directory to make permanent the changes.

DGIS Version 3

Introduction

This driver supports DGIS-based applications. For a complete and updated list, refer to your distributor.

This section explains how to:

- install the DGIS driver
- run a test file to verify the functionality of the host driver
- remove the DGIS driver.

Keeping Old Version of DGIS

If you have in your installation directory a previous version of the DGIS Driver, you can save the old files, otherwise they will be overwritten.

How to Install the DGIS Driver

Install the DGIS driver onto your hard disk using the following procedure:

1. Go to the installation directory typing:

   cd \<installation directory> <Enter>

   this directory must contain the file **setupinf.aaa** (the configuration file for your INFOTRONIC board).

2. Place DOS DISK N. 2 in drive A and type:

   A:INSTALL <Enter>

3. When the installation menu appears, select to install:

   DGIS Version 3

When the install program asks if your system include two monitors, press **<Y>** if you are working in dual screen configuration.

NOTE:

To work in Dual Screen mode you need a primary display board (VGA, Hercules, etc.) and you have to disable the CGA emulation on the INFO DTP Board (Jumpers P10, P11 and P12 must be set in "OFF" position).

4. The drivers install program will create a batch file to load DGIS Version 3. This batch file is called:

   - DGIS3

5. When the installation is complete press <Esc> to quit.

How to Load the DGIS Driver using a Batch File

To load the DGIS driver, open your installation directory and type:

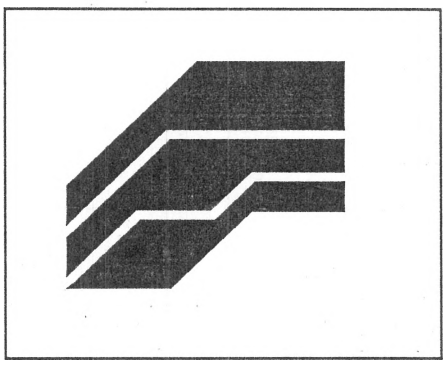
dgis3 <Enter>

When the system prompt is displayed, the DGIS driver is loaded.

To verify the correct installation of the driver you can run the program:

dgistest <Enter>

If the driver has been successfully loaded, the following screen appears with the INFOTRONIC logo shown on next page.



Screen Displayed after Dgistest

Press any key to go back to DOS

The diskette includes also a README file containing updated installation and functionality instructions.

How to Remove the DGIS Driver

We recommend removing the DGIS driver whenever you change your operating environment. To remove the DGIS driver:

1. Open your installation directory and type:

   dgis -x <Enter>

When the DGIS driver has been removed, the system displays the message:

DGIS: Previous DGIS successfully removed -- exiting...

VENTURA PUBLISHER Rel. 2.0

This is a DGIS based driver and supports Ventura Publisher Rel. 2.0. You must load DGIS before working with Ventura 2.0 (Please refer to the DGIS Version 3 addendum).

NOTE:

If DGIS is already loaded on your system, do not re-load it.

Before You Start

Before installing the Ventura driver on your system, check the following:

- Ventura Publisher Rel. 2.0 is installed on your system
- A VGA board was specified as the video display when Ventura was installed
- 2MB of system total memory are installed; the expanded memory must be driven by a related device driver (like **qemm.sys**) specified in the **config.sys** file

How to Install the Ventura Driver

To install the Ventura driver:

1. Insert DOS DISK N. 2 in drive A
2. Change to disk A by typing:

   a: <Enter>

3. Type:

   vpsetup <Enter>

The installation program will display a list of questions.

4. Answer the questions on the screen

5. Select:

   DGIS compatible graphics card

   NOTE:

   When the mouse configuration is requested during the VPSETUP procedure, be sure to choose the same mouse selected during Ventura Installation.

   When the message:
   "*The 130,000 Words Hyphenation Dictionary Requires 1.2 Mb Ems Memory. Do You Wish To Use The Dictionary?*"
   appears, remember that some versions of Ventura Publisher 2.0 for different countries (e.g. Italian Version) do not have the **\DICT** directory, in this case you have to answer **<NO>** to this question.

The system prompt is displayed when the Ventura driver is installed.

You can now run Ventura.

6. Change from disk A to the root directory on C by typing:

   c: <Enter>

7. When the prompt is displayed, type:

   vp <Enter>

or, if you have Ventura Professional Extension, type:

vpprof <Enter>

Ventura is now running.

The diskette includes also a **README.VP** file containing updated installation and functionality instructions.

GEM ver. 3.x

This driver supports GEM Rel. 3.x under the DGIS environment. You must load DGIS before working with GEM (Please refer to the DGIS Version 2 addendum).

NOTE:

If DGIS is already loaded, do not re-load it.

How to Setup GEM

Before performing the installation of the DGIS driver for GEM you must already have the GEM application installed in your system for VGA graphics support.

1. Insert the GEM installation diskette supplied by Digital Research Inc.
2. Change to disk A by typing:

   a: <Enter>

   you get the A:\> prompt.
3. Type:

   GEMSETUP <Enter>
4. Select the option:

   CHANGE EXISTING CONFIGURATION <Enter>

   and you will get the current setup.
5. Choose:

   CONTINUE <Enter>

   and in the next menu:

   CHANGE YOUR CURRENT SETUP <Enter>

6. Now select the display adapter line (it should be VGA Graphics Card) and press:

   <Enter>

7. When the GEMSETUP program asks you which card you are using, choose:

   OTHER (Driver Pack) <Enter>

8. Insert the Infotronic diskette containing the "GEM Driver for DGIS" in drive A and press:

   <Enter>

9. Choose the option:

   DGIS Compatible Graphics Card <Enter>

10. Select:

    SAVE and EXIT from GEMSETUP <Enter>

11. Do not remove the Infotronic diskette containing the "GEM Driver for DGIS" from drive A and press:

    <Enter>

GEM automatically installs the software for the high resolution graphic board.

Now you are ready to start the GEM application program with the command:

C: <Enter>
cd \ <Enter>
GEM <Enter>

The diskette includes also a **README.GEM** file containing updated installation and functionality instructions.

INFO SCOX/386

INFO SCOX/386 is the INFOTRONIC X server and device driver for INFO DTP boards family for SCO Unix SystemV 3.2. It is fully integrated in the Xsight environment and uses the Xsight standard clients.

Read this documentation carefully before attempting to install INFO SCOX/386.

System requirements

There are no special software requirements except the ones specified by SCO for the installation of SCO Xsight.

Before attempting to install INFO SCOX/386, be sure that Xsight is working properly in a VGA environment.

Hardware requirements

Before you start the installation process, make sure you have the following information:

- Board type
- Amount of memory on the board